

# SEQUENCE LISTING

<110> Benson, Timothy E

<120> CRYSTALLIZATION AND STRUCTURE DETERMINATION OF  
STAPHYLOCOCCUS AUREUS THIOREDOXIN REDUCTASE

<130> 00032.US1

<140> Unassigned

<141> 2001-04-03

<150> 60/195,055

<151> 2000-04-06

<160> 3

<170> PatentIn Ver. 2.1

<210> 1

<211> 320

<212> PRT

<213> Staphylococcus aureus

<400> 1

Met Gly Thr Glu Ile Asp Phe Asp Ile Ala Ile Ile Gly Ala Gly Pro  
1 5 10 15

Ala Gly Met Thr Ala Ala Val Tyr Ala Ser Arg Ala Asn Leu Lys Thr  
20 25 30

Val Met Ile Glu Arg Gly Ile Pro Gly Gly Gln Met Ala Asn Thr Glu  
35 40 45

Glu Val Glu Asn Phe Pro Gly Phe Glu Met Ile Thr Gly Pro Asp Leu  
50 55 60

Ser Thr Lys Met Phe Glu His Ala Lys Lys Phe Gly Ala Val Tyr Gln  
65 70 75 80

Tyr Gly Asp Ile Lys Ser Val Glu Asp Lys Gly Glu Tyr Lys Val Ile  
85 90 95

Asn Phe Gly Asn Lys Glu Leu Thr Ala Lys Ala Val Ile Ile Ala Thr  
100 105 110

Gly Ala Glu Tyr Lys Lys Ile Gly Val Pro Gly Glu Gln Glu Leu Gly  
115 120 125

Gly Arg Gly Val Ser Tyr Cys Ala Val Cys Asp Gly Ala Phe Phe Lys  
 130 135 140

Asn Lys Arg Leu Phe Val Ile Gly Gly Gly Asp Ser Ala Val Glu Glu  
 145 150 155 160

Gly Thr Phe Thr Thr Lys Phe Ala Asp Lys Val Thr Ile Val His Arg  
 165 170 175

Arg Asp Glu Leu Arg Ala Gln Arg Ile Leu Gln Asp Arg Ala Phe Lys  
 180 185 190

Asn Asp Lys Ile Asp Phe Ile Trp Ser His Thr Thr Lys Ser Ile Asn  
 195 200 205

Glu Lys Asp Gly Lys Val Gly Ser Val Thr Leu Thr Ser Thr Lys Asp  
 210 215 220

Gly Ser Glu Glu Thr His Glu Ala Asp Gly Val Phe Ile Tyr Ile Gly  
 225 230 235 240

Met Lys Pro Leu Thr Ala Pro Phe Lys Asp Leu Gly Ile Thr Asn Asp  
 245 250 255

Val Gly Tyr Ile Val Thr Lys Asp Asp Met Thr Thr Ser Val Pro Gly  
 260 265 270

Ile Phe Ala Ala Gly Asp Val Arg Asp Lys Gly Leu Arg Gln Ile Val  
 275 280 285

Thr Ala Thr Gly Asp Gly Ser Ile Ala Ala Gln Ser Ala Ala Glu Tyr  
 290 295 300

Ile Glu His Leu Asn Asp Gln Ala Arg Ser His His His His His His  
 305 310 315 320

<210> 2

<211> 320

<212> PRT

<213> Escherichia coli

<400> 2

Gly Thr Thr Lys His Ser Lys Leu Leu Ile Leu Gly Ser Gly Pro Ala

1	5	10	15
Gly Tyr Thr Ala Ala Val Tyr Ala Ala Arg Ala Asn Leu Gln Pro Val			
20	25	30	
Leu Ile Thr Gly Met Glu Lys Gly Gly Gln Leu Thr Thr Thr Thr Glu			
35	40	45	
Val Glu Asn Trp Pro Gly Asp Pro Asn Asp Leu Thr Gly Pro Leu Leu			
50	55	60	
Met Glu Arg Met His Glu His Ala Thr Lys Phe Glu Thr Glu Ile Ile			
65	70	75	80
Phe Asp His Ile Asn Lys Val Asp Leu Gln Asn Arg Pro Phe Arg Leu			
85	90	95	
Asn Gly Asp Asn Gly Glu Tyr Thr Cys Asp Ala Leu Ile Ile Ala Thr			
100	105	110	
Gly Ala Ser Ala Arg Tyr Leu Gly Leu Pro Ser Glu Glu Ala Phe Lys			
115	120	125	
Gly Arg Gly Val Ser Ala Cys Ala Thr Cys Asp Gly Phe Phe Tyr Arg			
130	135	140	
Asn Gln Lys Val Ala Val Ile Gly Gly Gly Asn Thr Ala Val Glu Glu			
145	150	155	160
Ala Leu Tyr Leu Ser Asn Ile Ala Ser Glu Val His Leu Ile His Arg			
165	170	175	
Arg Asp Gly Phe Arg Ala Glu Lys Ile Leu Ile Lys Arg Leu Met Asp			
180	185	190	
Lys Val Glu Asn Gly Asn Ile Ile Leu His Thr Asn Arg Thr Thr Glu			
195	200	205	
Glu Val Thr Gly Asp Gln Met Gly Val Thr Gly Val Arg Leu Arg Asp			
210	215	220	
Thr Gln Asn Ser Asp Asn Ile Glu Ser Leu Asp Val Ala Gly Leu Phe			
225	230	235	240
Val Ala Ile Gly His Ser Pro Asn Thr Ala Ile Phe Glu Gly Gln Leu			
245	250	255	
Glu Leu Glu Asn Gly Tyr Ile Lys Val Gln Ser Gly Ile His Gly Asn			

260                      265                      270  
 Ala Thr Gln Thr Ser Ile Pro Gly Val Phe Ala Ala Gly Asp Val Met  
           275                      280                      285  
 Asp His Ile Tyr Arg Gln Ala Ile Thr Ser Ala Gly Thr Gly Cys Met  
           290                      295                      300  
 Ala Ala Leu Asp Ala Glu Arg Tyr Leu Asp Gly Leu Ala Asp Ala Lys  
 305                      310                      315                      320

<210> 3  
 <211> 333  
 <212> PRT  
 <213> Arabidopsis thaliana

<400> 3  
 Met Asn Gly Leu Glu Thr His Asn Thr Arg Leu Cys Ile Val Gly Ser  
       1                      5                      10                      15  
 Gly Pro Ala Ala His Thr Ala Ala Ile Tyr Ala Ala Arg Ala Glu Leu  
           20                      25                      30  
 Lys Pro Leu Leu Phe Glu Gly Trp Met Ala Asn Asp Ile Ala Pro Gly  
           35                      40                      45  
 Gly Gln Leu Thr Thr Thr Thr Asp Val Glu Asn Phe Pro Gly Phe Pro  
           50                      55                      60  
 Glu Gly Ile Leu Gly Val Glu Leu Thr Asp Lys Phe Arg Lys Gln Ser  
           65                      70                      75                      80  
 Glu Arg Phe Gly Thr Thr Ile Phe Thr Glu Thr Val Thr Lys Val Asp  
           85                      90                      95  
 Phe Ser Ser Lys Pro Phe Lys Leu Phe Thr Asp Ser Lys Ala Ile Leu  
           100                      105                      110  
 Ala Asp Ala Val Ile Leu Ala Ile Gly Ala Val Ala Lys Arg Leu Ser  
           115                      120                      125  
 Phe Val Gly Ser Gly Glu Val Leu Gly Gly Phe Trp Asn Arg Gly Ile  
           130                      135                      140

Ser Ala Cys Ala Val Cys Asp Gly Ala Ala Pro Ile Phe Arg Asn Lys  
 145 150 155 160

Pro Leu Ala Val Ile Gly Gly Gly Asp Ser Ala Met Glu Glu Ala Asn  
 165 170 175

Phe Leu Thr Lys Tyr Gly Ser Lys Val Tyr Ile Ile His Arg Arg Asp  
 180 185 190

Ala Phe Arg Ala Ser Lys Ile Met Gln Gln Arg Ala Leu Ser Asn Pro  
 195 200 205

Lys Ile Asp Val Ile Trp Asn Ser Ser Val Val Glu Ala Tyr Gly Asp  
 210 215 220

Gly Glu Arg Asp Val Leu Gly Gly Leu Lys Val Lys Asn Val Val Thr  
 225 230 235 240

Gly Asp Val Ser Asp Leu Lys Val Ser Gly Leu Phe Phe Ala Ile Gly  
 245 250 255

His Glu Pro Ala Thr Lys Phe Leu Asp Gly Gly Val Glu Leu Asp Ser  
 260 265 270

Asp Gly Tyr Val Val Thr Lys Pro Gly Thr Thr Gln Thr Ser Val Pro  
 275 280 285

Gly Val Phe Ala Ala Gly Asp Val Gln Asp Lys Lys Tyr Arg Gln Ala  
 290 295 300

Ile Thr Ala Ala Gly Thr Gly Cys Met Ala Ala Leu Asp Ala Glu His  
 305 310 315 320

Tyr Leu Gln Glu Ile Gly Ser Gln Glu Gly Lys Ser Asp  
 325 330